



The times are changing. After relative stability in the 80s and early 90s, energy prices are on a steep incline. Plus, government agencies have increased their energy consumption by more than 30 percent during the last 10 years. So energy is one of the largest operational expense items — and the least predictable.

To complicate matters, budgets at most federal facilities haven't kept pace with rising costs. Financial constraints inevitably lead to infrastructure deterioration, which goes hand in hand with decreased efficiency and increased energy expenses. It's a vicious cycle.

These challenges are magnified by the Energy Policy Act of 2005 — legislation that requires military bases and posts to cut energy consumption 20 percent from 2003 usage. The reduction must be completed by 2015, and intermediate goals require cutbacks every year.

The good news: the Energy Policy Act also extends the authority for all federal agencies to use Energy Savings Performance Contracts (ESPCs) until 2016. This financing vehicle allows organizations to pay for vital improvements with energy and operational savings. In addition, the Federal Energy Management Program (FEMP) offers Super ESPCs, which allow agencies in a particular region to place delivery orders with pre-selected energy service companies (ESCOs).

However, all ESCOs are not created equal. Honeywell has a unique mix of people, processes, technology and experience to develop and implement ESPC projects tailored to an organization's specific mission and goals. Our approach maximizes available resources to fund critical upgrades, improve comfort and increase energy security.

The Honeywell Difference

An Integrated Approach. There is compelling evidence to suggest that traditional demand-reduction improvements — lighting upgrades, for example — have limited impact in the face of today's volatile energy market. As a result, Honeywell works with federal agencies to develop the type of program employed by Fort Bragg, the U.S. Army post in Fayetteville, N.C.

Honeywell and the Army have turned this 30-million-square-foot post into a template for successful energy management. In fact, FEMP has highlighted the Fort Bragg program as a best practice in consulting with other government agencies. That's because it has delivered more than \$57 million in energy savings at the post to date, a current rate of about \$15 million per year.

The reason for this success is the integration of innovative demand- and supply-side measures. For example, the Post constructed a state-of-the-art, five-megawatt combined heat and power (CHP) plant as part of the program. The plant, which went online in the spring of 2004, uses waste heat from natural gas combustion to achieve an estimated 70 percent overall energy efficiency, compared with 35 to 40 percent typical of central electricity sources. The plant also improves security at the base by providing on-site generation capacity.

Integrated Energy Services from Honeywell help organizations develop a full-circle strategy that includes energy supply, energy-using assets and the real-time interaction between supply and demand. As a result, Honeywell can deliver more savings than by implementing a retrofit or supply plan alone — the whole is greater than the sum of the parts.

A Focus on Measuring Success. Measurement and verification is essential to any performance contract. But it's often overlooked. Honeywell follows a rigorous process to make sure the



savings we guarantee are real. We start with advanced metering that measures energy use hourly and provides data daily (another future requirement of the Energy Policy Act). And we have certified energy managers who use the most advanced analysis tools to quantify results. These experts oversee all measurement and verification activities — the work is never left to a third party. We also can help identify additional energy-saving opportunities during this process.

A Local Workforce with Global Support. Honeywell has offices throughout the United States, as well as a team dedicated to providing engineering, project management, contracting, measurement and verification, and service for federal agencies. Also, we work with local contractors when possible to deliver jobs. So organizations get local, hands-on support before, during and after projects.

The team also has access to the resources of a \$30 billion Fortune 100 company to help develop solutions that address our customers' critical needs.

A Commitment to Green. Exciting advancements in renewable energy, alternative energy sources and technologies are creating new worlds of opportunity — and the ability to reduce the dependence on traditional energy sources.

For example, Honeywell replaced an aging, leaking roof on the Base Exchange building at Luke Air Force Base with a 144,000-square-foot photovoltaic solar roof system. The system will initially produce more than 120 kilowatts of power — enough energy to power more than 35 homes per year — and provide decades of free, zero-emissions energy for the base. The local utility will provide a \$488,000 rebate to help pay for the system. This is one part of a program that will save the base \$21.8 million in energy and operational costs over 20 years.

Our extensive experience in renewable and alternate energy markets also includes clean coal, wind power, biomass and geothermal. We help organizations meet energy mandates and become an environmental steward with practical and affordable green solutions.

An Unrivaled Legacy. Energy control and energy cost savings have been integral to our business since Honeywell developed the first thermostats more than 110 years ago. For example, the precision in the ubiquitous Honeywell “round thermostat” delivered a level of energy control and resulting savings previously unimagined. Throughout the evolution of the modern building, Honeywell has cultivated a direct connection between the twin concepts of maximizing comfort and productivity while minimizing energy costs.

Specific to energy services, Honeywell is a pioneer in performance contracting with more than 25 years of experience. Honeywell has completed more than 4,000 ESPC projects and delivered \$3 billion in guaranteed energy and operational savings. Our background in ESPC began in the K-12 schools market, and then migrated into healthcare and industrial facilities. The experience we gained in these markets, especially in the complex and diverse industrial arena, has provided the knowledge and insight necessary for developing and implementing federal ESPC projects.



Federal ESPC Experience

A sampling of recent projects for the federal government includes:

Site	Scope of Work	Investment	kWh Reduction	CO ₂ Reduction (lbs)	Annual Savings
U.S. Army Fort Bragg* Fayetteville, N.C.	More than 23 major retrofits and upgrades, including: <ul style="list-style-type: none">• Cogeneration• HVAC controls• Energy monitoring• Chillers, boilers, etc.• Radiant heating	\$66 million	193 million	400 million	\$15 million
U.S. Postal Service Southern California	<ul style="list-style-type: none">• Cogeneration• HVAC controls• Chillers, air-handling units• Lighting	\$38.6 million	30 million	61.5 million	\$4.1 million
Luke Air Force Base Phoenix	<ul style="list-style-type: none">• Solar photovoltaic roof• Chiller replacements• Air-handling units• Lighting and daylighting• Energy management and control system• Water conservation• Occupancy-sensing thermostats• Water treatment services	\$27.1 million	27.9 million	57.1 million	\$2.7 million

*For more information on Fort Bragg, read the [cover story](#) from the October 2005 issue of *Engineered Systems*.

Financing Capability

Honeywell has agreements with multiple financial institutions with the experience and portfolios to finance any ESPC. When a project requires third party financing, we competitively select among these financial institutions to acquire the most favorable terms. Our excellent credit rating and successful track record allows us to secure financing at favorable rates without delay. We also offer internal financing and a lower-than-industry-average interest rate, for some projects. Funds are usually available within 14 days of delivery order execution.

Contact Information

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